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a hollow elongated ice conduit connecting said source of ice and said remote
6 location and providing ice communication therebetween;
a receptor at said remote location for receiving said ice; and
8 a vacuum pump in fluid communication through a vacuum line with said
receptor for withdrawing air from said conduit and creating a vacuum comprising
10 said negative air pressure substantially throughout said conduit, said air being
withdrawn from said conduit to create said negative air pressure in said conduit at
12 a point along said conduit substantially adjacent to or downstream from said
receptor, thereby causing said ice to traverse said conduit from said source into said
14 receptor.

REMARKS

Applicants' attorney wishes to express his appreciation to Examiner Shapiro for the Examiner's courtesy, thoroughness and helpful comments and discussion during the telephone interview conducted earlier today. The substance of that interview has been incorporated into the amendments and remarks herein. It is believed that the amendments and remarks herein place the case in condition for allowance of all claims.

The Specification has been amended to correctly identify and describe the Benny et al. patent, as was discussed during the interview. No new matter has been added.

The current final rejections in Paper No. 14 are a 35 U.S.C. § 102(b) rejection of Claims 1, 11, 39 and 126 over Benny et al.; a 35 U.S.C. § 103(a) rejection of Claims 59, 72, 97, 102, 105, 128, 138, 145 and 164 over Benny et al. in view of Wade, and a 35 U.S.C. § 103(a) rejection of Claims 65 and 151 over Benny et al. in view of Pink et al. Applicants respectfully submit that the amendments and remarks herein avoid and/or traverse these rejections.

Benny et al and Wade disclose very similar systems. In both a foodstuff (fish in

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Benny et al.¹ and ice in Wade) is withdrawn from a source (a fishing boat hold in Benny et al. and an ice chest in Wade) and conveying it under vacuum *for a short distance to a transition point*, where a *second, different type of motivating force* replaces the vacuum to move the foodstuff on to its ultimate destination. In Benny et al. the second force is gravity and in Wade it is a high positive pressure system. Benny et al. differs from Wade in this regard only in that a reduced air pressure exists in the gravity section of Benny et al's fish transport system, but significantly the reduced pressure in that section does *not* participate in moving the fish, which are transported through that section solely by gravity.

Both Benny et al. and Wade define required structural limitations of their systems that require dual-force motivation and preclude the vacuum portions of their systems from being anything more than a short segment to withdraw the fish or ice from its initial container and move it to the transition point at which the second motivating force takes over and provides the longer conveyance to the destination point. Alteration of any of these defined structural limitations will destroy the references' systems for their intended use. Benny et al. requires that the transition point (the fish-air separator 54) be at the apex of the system, so that the vacuum pulls the fish up out of the boat² through conduit 44 and up to the top of separator 54, where the air is diverted into the separator 54 and the fish fall by gravity through conduit 88 to the processing plant conveyor belts 26. Benny et al's disclosure is quite specific about the structure and relative locations of the separator, boat, and plant. Those skilled in the art would recognize Benny et al's system as analogous to a roller coaster, where a chain pulls the car to the top of the incline and then gravity causes the car to roll down the rest of the track. Any alteration to Benny et al's system defeats either the vacuum lift or the gravity fall of the fish.

Wade has a similar limitation. Wade's main system is a high positive pressure

¹ Benny et al. also disclose moving raw potatoes, but for the discussion herein it is sufficient to refer primarily only to the fish conveyance system.

² Benny et al. frequently refer to this as the fish "flying up"; see, e.g., col. 5, line 29 and Claim 1(d).

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system for conveying ice from an ice chest 11 through conduit 15 to one or more receivers 12, 13 and 14. The only vacuum presence is in short line 19, and is created by aspiration at junction 17 to draw the ice out of the chest 11 and into the high pressure air stream in conduit 15. Those skilled in the art would recognize that this use of reduced pressure in an otherwise entirely high pressure system is necessary only because it is not practical to route a high pressure air stream through the chest 11.

Neither Benny et al. nor Wade contemplates conveyance of the foodstuffs entirely through the respective systems by vacuum. Indeed that cannot be done at all by Wade, since it would require complete conversion of Wade's system. Neither is it feasible for Benny et al. since that would require moving the plant 28 to a higher level and moving the separator 54 into the plant.

Applicants' amended claims clarify the patentable distinctions of their system over those of Benny et al. with or without Wade (or Pink et al.). Applicants have earlier amended Claim 1 to state that the motivating negative air pressure exists substantially throughout the system (excepting only in some embodiments the final few feet or less); see, e.g., Figures 4, 5, 13 and 14 and the description beginning at line 13 on page 15. In the present amendment Applicants further clarify that by specifying that the point at which the reduced air pressure is created in the ice transport conduit is substantially adjacent to or downstream of the intended receptor for the ice. This is more clearly illustrated in the same Figures 4, 5, 13 and 14, focusing on the separator 46 and the length relationship between conduits 24 and 24a, which are mentioned at various places in the Specification beginning at page 15. The same are also shown schematically in Figures 1, 2 and 3 and discussed in the related Specification on pages 12-14.

Nothing in Benny et al. discloses a substantially single-mode conveyance system, in which substantially all of the conveyance of the foodstuff is by vacuum. Therefore the § 102(b) anticipation rejection cannot stand.

Neither does the combination of Benny et al. with Wade support a § 103(a) rejection. As the Examiner correctly noted during the interview, two or more references

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can be combined under § 103(a) if there is appropriate motivation for such combination. In Paper 14, the Examiner identified that motivation as common intent to move *ice* particles entrained in air (page 8, last paragraph), and in the interview he identified it as common intent to move *foodstuffs* from source to receiver. Unfortunately neither of these supports the cited combination of references.

First, Benny et al. disclose only moving raw fish or potatoes, *not ice*. The difference is evident to those skilled in the art. The raw fish and potatoes of Benny et al. are raw, dirty and accompanied by debris³. Ice for consumption, on the other hand, must be clean, potable and edible. Therefore the Benny et al. system is exactly the opposite of the Wade (or Applicants') system. Neither can be incorporated with the other without completely defeating one or both for their intended uses. Therefore "moving ice" cannot be a common motivation to combine Benny et al. with Wade.

Second, if one considers "moving foodstuffs" to be the motivation, that is far too broad to support a §103(a) combination, since it would encompass *all* foodstuff transport, including use of food delivery trucks and railroad cars, use of shopping carts at the store, and even the "paper or plastic" bags shoppers use to carry home their grocery purchases.

It is well settled that "motivation" for combining references under § 103(a) requires that the motivation *be focused on the invention claimed by the applicant*, not just a general motivation related to overall goals in an entire industry. Clearly here the motivation of Benny et al. to empty a fishing boat quickly of dirty fish and all of their debris is far removed from Wade's motivation to provide clean ice cubes to, for instance, fast food restaurant patrons for their beverages.

Third, it is also well settled that for common motivation to be applicable under § 103(a), *it must be expressly disclosed in the references*. *Motivation cannot be implied by hindsight* from the applicant's teaching. In other words, the art itself must clearly teach the combination. In the present case of Benny et al. and Wade, not only does the cited art

³ Which in the case of the fish includes "gurry," which the dictionary defines as "fish offal."

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not teach any common motivation, in fact it teaches one skilled in the art directly away from any such combination. No one skilled in the art of delivery of clean ice in a restaurant, hospital, or similar venue for immediate use or consumption is going to look to the art of emptying fishing boats of fish and fish debris for relevance or analogy. Conversely, those skilled in the art of unloading fishing boats or potato trucks are not going to look to the restaurant ice service art for relevance or analogy.

Thus, since combination of Benny et al. with Wade would a) destroy one or both for its intended purpose, and b) result in the combination of entirely dissimilar and mutually exclusive (e.g., dirty vs. clean, and immediately edible products vs. raw products to be processed) systems, and since there is no common motivation disclosed by the cited references, the combination of Benny et al. and Wade cannot support the § 103(a) rejection.

Finally, neither is the Benny et al./Pink et al. § 103(a) rejection supported. Benny et al. and Pink et al. have nothing in common. The former is about conveying raw fish and potatoes, not ice, so Pink et al.'s ice debridging device is entirely irrelevant to Benny et al. One does not "debridge" fish. Further, Pink et al. is directed to the structure of a freezer compartment in a household refrigerator, while Benny et al. is directed to unloading fishing boats and potato trucks, which of course those skilled in the art would consider entirely non-analogous. Here also the Examiner has stated as the "motivation" that both Benny et al. and Pink et al. are "examples of ice conveying apparatus" (top of page 10). As noted above, however, Benny et al. is not related to ice conveyance. Consequently the § 103(a) rejection based on the combination of Benny et al. in view of Pink et al. should also be withdrawn.

CONCLUSION

These points were well covered during the telephone interview. As Applicants' attorney stated at that time, in view of the above amendments and remarks, it is respectfully submitted that all grounds of final rejection have been avoided and/or traversed. Applicants' attorney therefore now confirms and continues his request to the

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Examiner to enter the amendments herein, reconsider and withdraw the rejections and allow the above-identified Claims, as amended.

Previously during prosecution the Examiner required Applicants to elect no more than fifteen claims of their 164 claims as filed for the purpose of examination. In response Applicants elected Claims 1, 11, 39, 59, 65, 72, 97, 102, 105, 126, 128, 138, 145, 151 and 164. In a prior Office Action the Examiner withdrew from consideration the remaining 149 claims. Applicants have established above that the elected claims -- including the only two independent claims in the case, Claims 1 and 126 -- are all allowable. It therefore follows that all 162 of the dependent claims are also allowable, including those 149 non-elected claims that the Examiner withdrew from consideration. Applicants therefore request that the Examiner cancel the withdrawal of the non-elected claims, reinstate those claims as active claims, and allow those claims along with the allowable elected claims. Therefore allowance of all Claims 1-164 is respectfully requested.

As Applicants' attorney and the Examiner discussed, this case has been before the Examiner for an extended period, and the issues are now clearly ripe for resolution, either for allowance or to go to appeal. Therefore, should the Examiner elect to maintain one or more of the grounds of rejection, *it is respectfully requested that the amendments herein be entered into the record now as placing the case in better form for appeal.*

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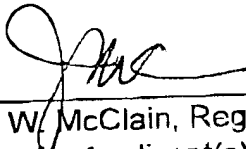
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However, should the Examiner believe that allowance of this application might be expedited and appeal avoided by further discussion of any issues, a telephone call to the undersigned attorney, collect, at the telephone number listed below, is cordially invited on or after December 31, 2001, when the attorney will once again be at his office.

Respectfully submitted,

Date: December 24, 2001

By: 
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APPENDIX

IDENTIFICATION OF AMENDMENTS

In the Specification at lines 4-19 on page 4:

-- In the past vacuum systems have not been widely used as alternatives to high pressure air systems, especially in the conveyance of ice, and particularly over extended distances. A vacuum system for movement of fish from fishing boats to wharfside fish [processes] processing plants has been disclosed in U.S. Patent No. 4,394,259 ([Berry] Benny et al.). In the disclosed system, a wharf-mounted vacuum lift is used to draw fish out of the hold of a fishing boat and up to an elevated position, and then the fish drop by gravity to a belt conveyer system at the entrance to a wharfside processing plant. The total travel distance of the fish is short. Since the purpose of the system is to empty a boat's hold as quickly as possible, so that the boat can move away from the wharf, there is no provision for metering the movement of the fish, or for moving the fish only on demand, or for directing the fish into [several different] complex routing paths. Further, the system appears to be prone to frequent blockages, since no structure is shown which would prevent an excessive number of fish from being drawn into the inlet of the vacuum line simultaneously and becoming jammed together at the inlet, thus requiring the system to be shut down so that the blockage can be removed. --

In Claim 1:

1. (Twice Amended) Apparatus for conveying ice in the form of a plurality of
- 2 pieces each having physical characteristics amenable to transport by negative air pressure pneumatic conveyance, from a source of said ice to a remote location

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4 under said negative air pressure, which comprises:
a hollow elongated ice conduit connecting said source of ice and said remote
6 location and providing ice communication therebetween;
a receptor at said remote location for receiving said ice; and
8 a vacuum pump in fluid communication through a vacuum line with said
receptor for withdrawing air from said conduit and creating a vacuum comprising
10 said negative air pressure substantially throughout said conduit, said air being
withdrawn from said conduit to create said negative air pressure in said conduit at
12 a point along said conduit substantially adjacent to or downstream from said
receptor, thereby causing said ice to traverse said conduit from said source into said
14 receptor.

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